REMARKS

I. Claim Rejections – 35 U.S.C. § 103

Requirements for Prima Facie Obviousness

The obligation of the examiner to go forward and produce reasoning and evidence in support of obviousness is clearly defined at M.P.E.P. §2142:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

M.P.E.P. §2143 sets out the three basic criteria that a patent examiner must satisfy to establish a *prima facie* case of obviousness:

1. some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;

2. a reasonable expectation of success; and

3. the teaching or suggestion of all the claim limitations by the prior art reference (or references when combined).

It follows that in the absence of such a *prima facie* showing of obviousness by the Examiner (assuming there are no objections or other grounds for rejection), an applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443 (Fed. Cir. 1992). Thus, in order to support an obviousness rejection, the Examiner is obliged to produce evidence compelling a conclusion that each of the three aforementioned basic criteria has been met.

Applicant further notes that the U.S. Supreme Court ruling of April 30, 2007 (*KSR Int'l v. Teleflex Inc.*) states:

> "The TSM test captures a helpful insight: A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art. Although common sense directs caution as to a patent application claiming as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does."
>
> "To facilitate review, this analysis should be made explicit."

The U.S. Supreme Court ruling states that it is important to identify a *reason* that would have prompted a person to combine the elements and to make that analysis *explicit*.

Shimizu in view of Mahy

Claims 1, 3-5, 10-16, and 19-22 stand rejected under 35 USC 103(a) as being unpatentable over Shimizu et al, US 7,167,277 (hereinafter Shimizu), in view of Mahy, US 5,832,109 (hereinafter Mahy).

Regarding claims 1 and 10, the Examiner argued Shimizu discloses a system comprising: a plurality of color values corresponding to CMY color data value (citing col. 2, lines 28-59) automatically provided as input to an image processing device (citing Figs. 5, 7, 18, and 19; col. 11, line 65 - col. 12, line 19), wherein said image processing device is under a control of a particular dimensional order (arguing processing in three-dimensional arrays, citing col. 13, lines 51-65). The Examiner further argued a color sensor (arguing measurement of L*a*b* values indicates a color sensor must be used for color measuring, citing col. 11, lines 65-67 and col. 12, lines 1-19) for dynamically determining which color value among said plurality of color values has attained a gamut limit (arguing Shimizu discloses a flow chart or algorithm which has a steps to determining shortest distance from boundary of color gamut in Figs. 7 & 9, judging whether color value is near the color gamut boundary which is actively or dynamically performed, citing col. 13, lines 5-37 and col. 15, lines 41-66) is taught by Shimizu.

The Examiner admitted Shimizu fails to teach a transformation module for automatically reducing said particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit, thereby providing improved control for colors that are located external to said gamut. The Examiner, however, that argued Mahy teaches such a transformation module, arguing Mahy teaches that a transformation module for automatically reducing said particular dimensional order based on determining which color value among said plurality of color

values has attained said gamut limit (arguing Mahy discloses an example mathematical model of 3-ink process with one color value C1 reaches its limit at 0, dimensional order of 3-ink process is automatically reduced to a 2-ink process because an n-ink process is completely characterized by its colorant gamut with a number of colorant limitations; citing col. 14 lines 50-64 and col. 1 lines 49-58), thereby providing improved control for colors that are located external to said gamut (citing col. 7, lines 45-48).

The Examiner therefore argued it would have been obvious for one skilled in the art to modify Shimizu to include a transformation module for automatically reducing said particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit, thereby providing improved control for colors that are located external to said gamut, taught by Mahy, because it helps to control the L*a*b value of a certain color which is outside a target color gamut, and further the mathematical model provided by Mahy could be implemented for one another with predictable results.

The Applicant respectfully disagrees with this assessment. First, the Shimizu reference makes no mention of "automatic input" in col. 11, line 65 - col. 12, line 19. In fact, the cited material is actually an explanation of fig. 7 which specifically does not require any input. Col. 12 lines 44-46 states "... L, a and b, which are variables indicating the grid numbers of a grid point in an L*a*b* space, are all initialized to '0'". There simply is no input needed in this example because the values are initialized at 0. Indeed, there is absolutely no mention of input, much less automatic input, anywhere in the cited language. In addition the process being shown in flowchart seven is for the creation of a color conversion table. Thus, pretending this does teach automatic input, the Examiner still fails to establish why this particular feature of the present invention would be valuable for use in the present invention. There is absolutely no need for a color conversion table as claimed in the present invention and the automatic input of colors via a color conversion table would not improve the present invention at all. The Examiner has in effect, cited something from the reference which is not used

or needed in the present invention to teach the limitations of the present invention. The present invention does not claim automatic input via a color conversion table.

Further, while Shimizu discusses "three-dimensional arrays," the Applicant respectfully disagrees that this teaches control of a particular dimensional order. The language is Shimizu clearly limits the reference to three-dimensional orders. As is made clear by the language of claim 10 and Applicant's specification, the "particular order" is not limited to the three-dimensional case. Applicant's abstract specifically notes dimensions are not limited and may include the two-dimensional case as well.

In response to this argument, the Examiner claimed the 'particular order' is not limited to the three dimensional" SIC is not in the rejected claims. The Applicant respectfully notes the words "particular order" are in the claims and the fact that a "particular order" is not limited to the three dimensional case is because the word "particular" does not suggest all nouns modified by "particular" are third dimensional. The Examiner has failed to cite any other material for the rejection of this claim. Because the limitation that a "particular order" is specifically recited in the rejected claims and in light of the fact that the Examiner has failed to cite any material otherwise rejecting this limitation the Applicant respectfully asserts claim 10 is not obvious.

The Applicant also respectfully disagrees that use of a color sensor to determine which color has attained a gamut limit has been taught. The first evidence of this is the fact the Examiner has cited two separate sections of the Shimizu reference in arguing this single point of Applicant's invention. First, the Examiner cites col. 11, lines 65-67 and col. 12, lines 1-19 of Shimizu arguing this teaches use of a color sensor. This relates to the adoption by Shimizu of another patented method for creating color conversion tables. The Applicant is not asserting use of a color sensor is unique to the present invention. Indeed, color sensors are most assuredly used in many different types of applications. Rather, the Applicant is using the color sensor to determine which color value among the plurality of color

values has reached the gamut limit, and not to create a color conversion table. It is important to understand that the entire process being described by the cited material and Fig. 7 of the referenced patent is being used to create a reference table. This is not the same as using a color sensor to determine if a color has reached the gamut limit. Indeed, the reference highlights the fact that the present claim is different because no table is created.

The Examiner appears to misunderstand the Applicant's argument. The Examiner continues to cite material in the reference that teaches the creation of a color conversion table. The present invention never teaches discusses, considers, describes, or even contemplates a color conversion table in any capacity. Therefore, citing the creation of a color conversion table to teach, the use of a color sensor for determining which color among a plurality has reached a gamut limit is insufficient to establish prima facie obviousness.

Finally, the Examiner states in his response to this argument "Without a set of L*a*b input color value, how a color conversion process be performed?" (SIC). Of course a color value is needed to perform a color conversion. However, this does not logically mean the use of a color sensor in one invention logically teaches or suggests a different use of a color sensor in another. It is not the color sensor itself but the way in which the sensor is used that differentiates the present invention from the reference.

The Examiner has admitted Mahy simply constitutes a statement of the fact that a mathematical space of n dimension's can be defined by its boundaries and that said boundaries have a dimension n-1. This surely does not teach, as the Examiner suggests, using a transformation module to determine colors at or beyond a gamut limit. The language cited by the examiner is, in essence, a scholarly lecture on the meaning of "color gamut" and the geometric properties of mathematical spaces, followed by a conclusion that this language teaches or suggests use of a transformation to determine colors that have reached a gamut limit. The fact that the word "transformation" appears in the reference is not sufficient to teach a

transformation module as taught by Applicant's present invention. In the context of Mahy "transformation" is only being used as part of the definition of a color gamut.

In addition, the Examiner's response to this argument that "a transform module must be used for n-ink process transformation process" is a conclusion the Examiner has established but is not taught by the reference. Prima facie obviousness requires that the reference itself actually teach or suggest all the limitations of the challenged invention. The Examiner's unsupported conclusion that a mathematical model could ever teach the specific real-world physical application described in the present invention is simply not enough to establish prima facie obviousness.

Finally, per the decision in KSR Int'l v. Teleflex Inc., it is not enough that the Examiner identify all elements of Applicant's invention in past references (which the Applicant suggests the Examiner has still failed to do); the Examiner must also explicitly explain the reason one of ordinary skill in the art would have combined the referenced inventions in the way they are taught in Applicant's invention. The Examiner has cited col. 4, lines 17-43 suggesting this discussion explains the motivation for the combination of Shimizu and Mahy as a means for providing each and every claim limitation of Applicant's claims. The Examiner has failed to cite any material to explain how the combination of elements supposedly taught by Mahy would improve the Shimizu invention. Some actual citation to the references to explain the motivation for their combination is necessary under the *KSR Int'l* holding.

Further, the Examiner has still failed to explain how a transformation module for automatically reducing a particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit, which the examiner claimed is taught by Mahy, would improve the Shimizu invention. The Examiner claims in the response to this argument that the three basic criteria of prima facie obviousness have been established. However, the Examiner has failed to make that analysis specific as required under the holding in *KSR Int'l*.

As evidence consider that the Examiner specifically stated Shimizu fails to teach a transformation module. This is because the Shimizu invention functions without the need for a transformation module. Thus, at the very least, it is the Examiner's burden to explain how stuffing a transformation module into an already functioning invention would improve that invention. The Examiner has only explained the result of such a combination (improved control of certain L*a*b colors) without explaining how the combination would yield such a result. Further, the Examiner claims the combination could yield predictable results without citing anything explaining how or what that predictable result would be. The Applicant respectfully asserts the predictable result would be the inclusion of a useless transformation module in an already functioning invention yielding no improvement to either the Shimizu or Mahy invention.

Based on the arguments presented above the Applicant respectfully requests the rejection of claims 10 and 1, based on 35 USC 103, be withdrawn.

Regarding claims 3 and 12, the Examiner argued "Shimizu teaches wherein said particular dimensional order comprises a three-dimensional order" (citing col. 12, lines 30-42).

The Applicant notes if an independent claim is not obvious any claim dependent on that claim is also not obvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). The Applicant respectfully submits Claims 3 and 12 are dependent claims. Therefore, based on the arguments made in favor independent claims 1 and 10, the Applicant requests the rejection of claims 3 and 12 be withdrawn.

Regarding claims 4 and 13, the Examiner admitted Shimizu does not teach a transformation module further comprising a transformation module for reducing said three-dimensional order to a two-dimensional order. The Examiner argued Mahy teaches such a transformation module (citing col. 12, lines 19-32).

The Examiner therefore argued it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Shimizu to

include a transformation module further comprising a transformation module for reducing said three-dimensional order to a two-dimensional order taught by Mahy because it helps to determine the exact boundaries of the color gamut per lightness level from a set of discrete points (citing col. 4, lines 17-43). The Examiner argued, therefore by combining Mahy with Shimizu, a predictable success of controlling out-of-gamut memory and index color can be achieved.

The Applicant respectfully disagrees with this assessment. The cited passage lacks any reference to a "transformation module" as taught by Applicant's invention, or a description of any method or system at all. In fact, the cited passage lacks any insight into the art taught by Mahy. Rather, it is a simple description of the mathematical constructs of a color gamut. This is highlighted by the fact that this section of the Mahy reference is titled "Color Gamut Description" not "transformation module for order reduction".

The cited language in Mahy cannot be construed to teach or suggest a "transformation module", which is defined by Mahy as a mathematical function that expresses color value (col. 1, lines 44-50 of Mahy). This means even by the standard defined in Mahy, this is not a "transformation module". Being that there is no discussion in col. 12, lines 19-23 of Mahy, of any manifestation of a transformation module, or said module operating to reduce a three-dimensional order to a two-dimensional order. the Applicant asserts Mahy does not teach or suggest the limitations of claim 13 necessary to establish prima facie obviousness.

Further, the Examiner has cited col. 4, lines 17-43 in an effort to establish a motivation for the combination of Mahy and Shimizu. The Examiner claims such a combination is obvious because it helps to determine the exact boundaries of a color gamut resulting in the control of out-of-gamut memory and index colors. The Examiner has still failed to establish what suggests the inclusion of the mathematical model in Mahy would yield an improvement to Shimizu. First, including a mathematical model in any invention would not produce any result since the model is not a patentable limitation. Further, Shimizu is not designed to make use of order reduction

therefore including an order reducing transformation in Shimizu would not improve that invention. The cited language offers absolutely no explanation of how the order reduction described in claim 13 would improve the Shimizu invention, as required by the holding in KSR Int'l v. Teleflex Inc.

Based on the arguments presented above the Applicant respectfully requests the rejection of claims 13 and 4, based on 35 USC 103, be withdrawn.

Regarding claim 14, the Examiner admitted that Shimizu does not teach a transformation module which reduces a three-dimensional order to a two-dimensional order in response to determining which colors among said plurality of colors have attained said gamut limit.

The Examiner argued Mahy teaches such a transformation (citing Fig. 3; col. 12, lines 19-32; and col. 14, lines 34-46). Therefore, the Examiner argued it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Shimizu to include a transformation module that reduces a three-dimensional order to said two-dimensional order in response to determining which colors among said plurality of colors have attained said gamut limit taught by Mahy because it helps to determine the exact boundaries of the color gamut per lightness level from a set of discrete points (citing col. 4, lines 17-43). Therefore, by combining Shimizu with Mahy, a predicable success of controlling out-of-gamut memory and index color can be achieved.

The Applicant respectfully disagrees with this assessment. The Applicant argues the transformation described in Mahy is used to determine contours that ultimately are used to define the color gamut. By contrast, the reduction in claim 14 is in response to the dynamic determination of which of a specific plurality of colors has attained a gamut limit. Mahy and claim 14 share a similar means to a different end. The only element the cited language of Mahy and claim 14 actually share is the use of the word "transformation". As explained above, col. 12, lines 19-32 do not describe a transformation module even by the definition of "transformation module"

provided by Mahy. The cited language does not describe a transformation module in any capacity.

Finally, the Examiner has cited col. 4, lines 17-43 in an effort to establish a motivation for the combination of Mahy and Shimizu. However, the cited language offers absolutely no explanation of how the order reduction described in claim 13 would improve the Shimizu invention, as required by the holding in KSR Int'l v. Teleflex Inc. The Applicant respectfully asserts this lack of explanation is the same as that described previously.

Therefore, the Applicant argues all the limitations of claim 14 are not taught or suggested by Mahy and that claim 14 is therefore not obvious. The Applicant respectfully requests, in light of the above argument, that the rejection of claim 14, based on 35 USC 103, be withdrawn.

Regarding claims 5-15, The Examiner admitted Shimizu does not teach a transformation module where said module further comprises a transformation module for reducing said three-dimensional order to a one dimensional order.

The Examiner argued Mahy teaches such a transformation (arguing Mahy discloses a mathematical model showing how a 3-dimensional order is reduced to 1-dimensional order, citing col. 12, lines 36-64).

Therefore, the Examiner argued it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Shimizu to include a transformation module that reduces a three-dimensional order to said one-dimensional order as taught by Mahy because it helps to determine the exact boundaries of the color gamut per lightness level from a set of discrete points (citing col. 4, lines 17-43). Therefore, by combining Shimizu with Mahy, a predicable success of controlling out-of-gamut memory and index color can be achieved.

The Applicant respectfully disagrees with this assessment. The Applicant respectfully requests the Examiner review specifically, the argument the Examiner has offered that "Mahy discloses an invention to obtain the color gamut of an m-ink process in an n-dimensional color

space...". Claim 15 is not a process for obtaining a color gamut. The use of the word "obtain" shows that the goal of the cited reference is to describe or define a color gamut. Claim 15, by contrast, describes a transformation module for reducing a three-dimensional order to a one dimensional order. There is absolutely no mention of this in the reference.

Further, the reference fails to even mention a transformation from a three-dimensional order to a one dimensional order. How can such a citation teach or suggest the limitations of claim 15 when it fails to discuss a concept as foundational as a starting order of three-dimensions transformed to a finishing order of one dimension? The cited language utterly fails to discuss any transformation module for order reduction of any kind. The word "transform" does appear but is not related to the reduction of a three-dimensional order to a one-dimensional order.

With respect to the first prong of the aforementioned Prima Facie Obviousness test, the Applicant reminds the Examiner that the language of the references may not be taken out of context and combined then without motivation, in effect producing the words of the claims (and sometimes, not even the words or concepts of the claims), without their meaning or context.

Therefore, the Applicant argues all the limitations of claims 5 and 15 are not taught or suggested by Mahy and that claims 5 and 15 are therefore not obvious. The Applicant respectfully requests, in light of the above argument, that the rejection of claims 5 and 15, based on 35 USC 103, be withdrawn.

Regarding claim 16, the arguments made in favor of claims 5 and 15 apply equally to claim 16. In the interest of brevity those arguments are not repeated. The Applicant respectfully requests the rejection of claim 16 be withdrawn.

Regarding claim 19, The Examiner argued Shimizu teaches a color rendering device associated with a transformation module wherein said transformation module is integrated with said image processing device (citing Figs. 18 and 19, and col. 28, lines 53-55).

The Applicant respectfully disagrees with this assessment. The Applicant concedes Shimizu does teach a system in which a color rendering device is present. This is made clear in Fig. 19 and col. 28 lines 53-55. However, the key feature of claim 19 is that the transformation module is integrated with the image processing device. The Shimizu reference makes no mention of such integration. Indeed, Fig. 19 teaches away from the integration of the transformation module with a color rendering device. The color rendering device in that figure is specifically diagramed external to the other elements. Thus, rather than teaching integration, the Shimizu reference is specifically teaching away from the limitations of claim 19.

In addition, col. 28 lines 53-55 specifically state "FIG. 19 explains the general use form of a color conversion table ...". A color conversion table is not the same as a transformation module. In fact, no mention is made of a transformation module, as taught by Applicant's invention. Thus, it is impossible that all the limitations of claim 19 are taught or suggested by the Shimizu reference. Therefore, the Applicant respectfully requests that the rejection of claim 19, based on 35 USC 103, be withdrawn.

Regarding claim 20, The Examiner argued Shimizu teaches an iterative controller (arguing CPU 20 of Fig. 18 and PC 31 of Fig. 19) whose iterative output is input to said color rendering device (arguing Input/Output Device 25 of Fig. 18 and Printer 32 of Fig. 19), such that said iterative output of said iterative controller reflects a plurality of compensated color values requiring correction for rendering variations thereof (citing Fig. 19; col. 28, lines 8-67; and col. 29, lines 1-23).

The Applicant respectfully disagrees with this assessment. First, the Examiner's assertion that "CPU 20" of Fig. 18 or "PC 31" of Fig. 19 teach or suggest an iterative controller is ludicrous. A central processing unit is used to complete computer operations but that does not automatically qualify any invention which uses a CPU as iterative. "Iterative method" is defined at www.wikipedia.com as an attempt "to solve a problem by finding successive approximations to the solution...". The definition goes on to contrast this method to a "direct method which attempts to solve the problem in one-

shot...". These contrasting definitions are meant to make clear that a CPU is not iterative by nature. Rather, iteration is one solution method a CPU can use. In addition, iteration is implemented through use of computer software not hardware. As such, "CPU 20" and "PC 31" do not teach or suggest an iterative controller.

The cited language, in fact the entire Shimizu reference, fails to mention, even once, iteration in any form. Col. 28, lines 8-67 and col. 29, lines 1-23 discuss, as explained in col. 28, lines 53-55, the general use form of Fig. 19. This is an example based explanation of the process being described. There is absolutely no mention or even hint of a discussion of any iterative transformation module at work. The reference does however, once again discuss the use of a color conversion table stored in memory. Use of such a table is more analogous to the direct method described above since it is used for a simple "one-shot" conversion.

Based on the fact that the word "iterative" is not even mentioned, much less an iterative process described by the reference, the reference does not teach or suggest all the limitations of claim 20. Therefore, the Applicant respectfully requests that the rejection of claim 20, based on 35 USC 103, be withdrawn.

Regarding claim 21, the Examiner argued Shimizu teaches that the color rendering device comprises a printer (citing Fig. 19). The Applicant agrees with this assessment. However, the applicant refers the Examiner to the above argument regarding non-obvious dependent claims (In re Fine). In light of this argument, the Applicant respectfully requests that the rejection of claim 21, based on 35 USC 103, be withdrawn.

Regarding claim 22, the Examiner argued Shimizu teaches that the color rendering device comprises a photocopy machine (arguing Input/Output device 25 of Fig. 18).

The Applicant respectfully disagrees with that assessment. While the Applicant realizes an input/output device might include a photocopy machine, it is important to note that a photocopy machine is never mentioned in the Shimizu reference. Thus, the specificity of this claim is not considered,

taught or suggested by the Shimizu reference. This is further evidenced by the constant reference in the Shimizu reference to printers but the lack of reference to photocopy machines.

To establish prima facie obviousness the Examiner is required to specifically cite and explain how each and every feature of the challenged invention is taught or suggested by the reference. Since nothing in any of the references suggests the use of a photocopy machine in any capacity, the Applicant respectfully asserts the Examiner has failed to establish prima facie obviousness.

The applicant refers the Examiner to the above argument regarding non-obvious dependent claims (In re Fine). In light of these arguments, the Applicant respectfully requests that the rejection of claim 22, based on 35 USC 103, be withdrawn.

Shimizu in view of Mahy and further in view of Holub

Claims 2, 6-8 and 17-18 stand rejected under 35 USC 103(a) as being unpatentable over Shimizu et al, US 7,167,277 (hereinafter Shimizu), in view of Mahy, US 5,832,109 (hereinafter Mahy) as applied to claims 1 and 10, and further in view of Holub, US 6,750,992 (hereinafter Holub).

Regarding claims 17 and 18, the Examiner admitted Shimizu and Mahy fail to teach a color sensor comprised of an offline sensor and an inline sensor.

The Examiner argued "Holub teaches wherein said color sensor comprises an offline sensor (citing Fig. 3A, col. 11, lines 66-67; and col. 12, lines 1-19) and an inline sensor (citing Fig. 3B, col. 15, lines 42-67; and col. 16, lines 1-24)".

The Examiner argued it would have been obvious to one skilled in the art at the time of the invention to modify Shimizu and Mahy to include an offline and an inline sensor taught by Holub to improve communication, control and quality of color reproduction (citing col. 3, lines 3-15). The Examiner therefore argued by combining Shimizu and Mahy with Holub, a

predictable success of controlling out-of-gamut memory and index color can be achieved.

The Applicant respectfully disagrees with this assessment. Firstly, the referenced material does not describe an inline or offline sensor as described in Applicant's invention. Rather the cited material discusses "nodes" and their function in the Holub invention. Where in the cited language is there any mention of "inline sensor" or "offline sensor". Such descriptions simply are not present.

The Applicant asserts there is no motivation for the inclusion of the sensor described in Holub to Mahy as required to demonstrate prima facie obviousness. The Examiner admits Mahy and Shimizu do not teach an inline or offline color sensor. This is specifically because the art in Mahy operates without the need for such a sensor. In fact, the Examiner has admitted Mahy only teaches a mathematical model (see rejection of claim 10 where Examiner states "Mahy discloses an example mathematical model..."). Thus, the Examiner is at least required to explain how the inclusion of an inline sensor would improve the mathematical model described in Mahy.

In addition, the operation described in Shimizu would not benefit from the inclusion of an inline v. offline sensor as described by Applicant's invention, its function only requires a sensor generally. That means the technique described in Mahy and Shimizu would not be improved by adding an inline or offline sensor. Thus, one skilled in the art would have no motivation to incorporate the Holub sensor in Shimizu or Mahy.

In addition, there is not a reasonable expectation of success as required for a showing of prima facie obviousness. The addition of a sensor to Mahy would add nothing to the invention because that process already functions independent of a sensor. By contrast the use of the sensor as described in claims 17 and 18 is an essential component in the iterative process (another feature both Mahy and Shimizu lack) by which the invention operates. Simply put, adding a sensor to Mahy would not improve or change the functionality of that invention. In addition, the Examiner cites "improve[d] communication, control and quality of color reproduction as

motivation for the inclusion of the Holub sensor in Shimizu. However, the Examiner has failed to explicitly explain how the inclusion of an inline or offline sensor in the Shimizu reference would improve its function over the sensor already used, as required by the holding in *KSR Int'l v. Teleflex Inc.* Therefore, there is no reasonable expectation that the combination of the Holub sensor with the Mahy or Shimizu invention would successfully produce Applicant's invention. The Examiner's standard explanation that this combination would provide "improved controls for colors of certain L*a*b values" and that they could be "implemented for one another with predictable results" still fails to offer the essential "how" explanation required under the holding in *KSR Int'l v. Teleflex Inc.*

The Applicant notes the Examiner's finding that claims 6-8 have been rejected for the same reason discussed in the rejection of claims 17 and 18. The arguments made in favor of claims 17 and 18 apply equally to claims 6 and 8. In the interest of brevity those arguments are not repeated. The Applicant respectfully requests the rejection of claims 6, 8, and 17-18 be withdrawn.

Regarding claim 2, the Examiner argued Shimizu discloses dynamically determining utilizing a color sensor which color among a plurality of three colors has attained said gamut limit (arguing Shimizu discloses a flowchart or algorithm which has a steps to determine shortest distance from boundary of color gamut in figs. 7 & 9, judging whether color value is near the color gamut boundary which is actively or dynamically performed; citing col. 13, lines 5-37 and col. 15, lines 41-66), wherein said plurality of three colors comprises cyan, magenta, and yellow (arguing CMY- C for cyan, M for magenta & Y for yellow; citing col. 11 line 65 – col. 12, line 19) and wherein said color sensor (arguing measurement of L*a*b* values indicates that a color sensor must be used for color measuring; citing col. 11lines 66- col. 12, line 19).

The Examiner admitted Shimizu does not teach or disclose the color sensor comprising an offline sensor or an inline sensor or a combination thereof.

The Examiner argued Holub teaches wherein said color sensor comprises an offline sensor (citing Fig. 3A, col. 11 line 66- col. 12, line 19) and an inline sensor (citing Fig. 3B, col. 15 line 42 – col. 16, line 24).

The Examiner argued it would have been obvious to one skilled in the art to modify Shimizu and May to include the color sensor comprising an offline sensor or an inline sensor or a combination thereof as taught by Holub to improve communication, control and quality of color reproduction (citing col. 3, lines 3-15). The Examiner therefore argued this combination would yield the predictable success of controlling out-of-gamut memory and index colors.

The Applicant respectfully disagrees with this assessment. The Applicant respectfully asserts the arguments made in favor of claims 10 (regarding Shimizu teaching use of a sensor to dynamically determine if a color has attained a gamut limit) and 17 (regarding Holub teaching the use of an inline or offline sensor) apply equally to the rejection of claim 2. The Applicant therefore respectfully requests the rejection of claim 2 be withdrawn.

Claims 9 stands rejected under 35 USC 103(a) as being unpatentable over Shimizu et al, US 7,167,277 (hereinafter Shimizu), in view of Mahy, US 5,832,109 (hereinafter Mahy) and further in view of Holub, US 6,750,992 (hereinafter Holub).

Regarding claim 9, the Examiner argued Shimizu teaches a method, comprising: automatically providing a plurality of color values as input to an image processing device (citing Figs. 18 & 19, col. 28, lines 53-55), wherein said image processing device is under a control of a three-dimensional order (citing S21 of Fig. 7 and col. 12, lines 30-42); color among a plurality of three colors has attained said gamut limit (citing Figs. 6A-B, col. 14, lines 39 – col. 16, line 34), wherein said plurality of three colors comprises cyan, magenta, and yellow (citing s21 of Fig. 7, col. 11, line 65 – col. 12, line 19).

The Examiner admitted Shimizu does not teach that dynamically determining utilizing a color sensor, and transforming said three-dimensional order, in response to dynamically determining which color value among said

plurality of three color values has attained said gamut limit, and automatically reducing said three-dimensional order, thereby providing improved control for colors that are located external to said gamut.

The Examiner argued Mahy teaches transforming said three-dimensional order, in response to dynamically determining which color value among said plurality of three color values has attained said gamut limit (citing col. 14, lines 34-64 and col. 1, lines 49-58); and automatically reducing said three-dimensional order, thereby providing improved control for colors that are located external to said gamut (citing col. 12, lines 36-64).

The Examiner argued Holub teaches that dynamically utilizing a color sensor (citing Figs. 3A-B, col. 11, lines 66 – col. 12 line 19, and col. 15 liens 42 – col. 16, line 24).

The Examiner argued having a system of Shimizu and then given the well-established teaching of Mahy, it would be obvious to one skilled in the art to modify the service portal system of Shimizu to include transforming said three-dimensional order, in response to dynamically determining which color value among said plurality of three color values has attained said gamut limit and automatically reducing said three-dimensional order, thereby providing improved control for colors that are located external to said gamut as taught by Mahy since doing so would improve the control of L*a*b value of a certain color which is outside a target color gamut, and further the mathematical model provided by Mahy could be implemented for one another with predictable results; then to combine Shimizu and Mahy with Holub to include the concept of dynamically determining utilizing a color sensor taught by Holub to improve communication, control and quality of color reproduction (citing col. 3, lines 3-15).

The Examiner argued as a result of combining Shimizu and Mahy with Holub, a predictable success of controlling out-of-gamut memory and index color can be achieved.

The Applicant respectfully disagrees with this assessment. The Applicant respectfully asserts the foregoing arguments apply equally against the Examiner's rejection of claim 9. In the interest of brevity those

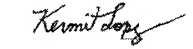
arguments are not repeated. The Applicant therefore respectfully request the rejection of claim 9 be withdrawn.

II. Conclusion

In view of the foregoing discussion, the Applicant has responded to each and every rejection of the Official Action. The Applicant has clarified the structural distinctions of Applicant's invention via the discussion provided herein. Applicant respectfully requests the withdrawal of the rejections under 35 U.S.C. §103 based on the preceding remarks. Reconsideration and allowance of Applicant's application is also respectfully solicited.

Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact the undersigned representative to conduct an interview in an effort to expedite prosecution in connection with the present application.

Respectfully submitted,



Dated: October 25, 2008

Kermit Lopez
Attorney for Applicants
Registration No. 41,953
ORTIZ & LOPEZ, PLLC
P.O. Box 4484
Albuquerque, NM 87196-4484
Tel. (505) 314-1312